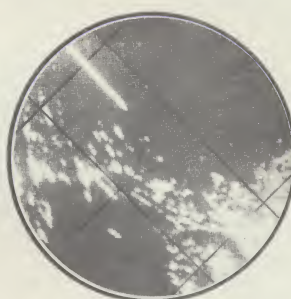


Westinghouse



# MILITARY & INDUSTRIAL CATHODE RAY TUBES

Quick Reference Guide



September 1966

Supersedes 86-617 dated December 1964



## **Westinghouse**

has  
A Wide Variety  
of.  
Industrial & Military  
Cathode Ray Tubes  
for

- ★ Radar Display
- ★ Computer Readout
- ★ Oscilloscope Applications

**Westinghouse Electric Corporation**  
Electronic Tube Division • Elmira, N.Y.





The WX-30099 shown above is a good example why Westinghouse is the leader in high resolution Cathode Ray tubes. This ruggedized, fiber-optic CRT with matched yoke and shield package has a center spot size of 0.7 mils with a guaranteed maximum edge spot size of 0.8 mils. Used in aerial photographic recording, the WX-30099 ruggedized package will meet the vibration requirements of MIL-T-5422E Part II and the shock requirements of MIL-T-5422E Para. 4.3.2.1.



# Electrostatic Focus and Deflection

Tube Type	PHYSICAL CHARACTERISTICS						Abs. Max. Anode		
	Max. Bulb Face Dim.	Max. Length	Faceplate Radius	Neck Dia.	Minimum Scr. Dia.	Base Dwg.		Anode	Grid Cutoff
	inches	inches	inches	inches	inches	(Page 8)	KV	KV	-Vdc
WX-4030P-3JP-A	4.02 × 1.77	10	60	—	3.5 × 1.12	10P	3	2.5	60 to 100
3WP-	3.06 dia.	10.18	8	2	2.75 dia.	14J	7.2	3	34 to 56
	3.06 dia.	11.62	Flat	1.38	2.75 dia.	12T	3	1.5	45 to 75
WX-5078P-	3.12 dia.	9.44	Flat	—	2.62 dia.	12E	3	1.5	90 max.
WX-5006P-	5.25 dia.	14.75	Flat	1.62	—	10Q	4.4	3	30 to 70
5DEP-	5.34 dia.	15.12	20	1.62	4.5 dia.	12E	3.2	1.5	75 max.
5UP-	5.34 dia.	15.12	20	1.62	4.5 dia.	12E	3	1.5	70 max.
WX-30362P-	5.34 dia.	15.12	Flat	1.62	4.5 dia.	12E	4	3.5	30 to 90
WX-5038P-	5.38 dia.	15.12	Flat	1.62	4.5 dia.	12E	3.2	1.5	75 max.
WX-30359P-	5.38 dia.	20.25	Flat	2	4.5 dia.	14U	12	10	50 to 90
7VP-	7.12 dia.	14.88	20	2	6 dia.	14R	4.8	2.5	70 max.
WX-31101P-	7.12 dia.	14.88	20	2	6 dia.	10U	8	4	35 to 70
8CP-	8.5 dia.	16.88	20	2	7.5 dia.	14J	8	4	24 to 56
WX-31102P-	8.5 dia.	16.88	20	2	7.5 dia.	10U	8	6	40 to 75
WX-30168P-	8.5 dia.	16.88	20	2	7.5 dia.	10U	8	6	40 to 75

## Magnetic Deflection - Round

Tube Type	PHYSICAL CHARACTERISTICS						Abs. Max. Anode		
	Max. Bulb Face Dia.	Max. Length	Faceplate Radius	Neck Dia.	Minimum Scr. Dia.	Base Dwg.		Anode	Focus Voltage
	inches	inches	inches	inches	inches	(Page 8)	KV	KV	Vdc
1" ROUND									
WX-4527P-	1.25	7.38	Flat	1.12	0.6	10Y	10	8	1200
1.5" ROUND									
WX-4497P-	1.38	12	Flat	1.44	1.0	12Q	12	10	2000 to 2500
WX-4949P-	1.38	12	Flat	1.44	1.0	12Q	12	10	2000 to 2500
3" ROUND									
WX-4127P-	3.09	12.5	Flat	1.44	2.75	12Q	22	10	2000 to 2500
WX-4827P-	2.88	13	Flat	1.44	2.12	10F1	12	10	2250
WX-4916P-	3.09	12.62	Flat	1.44	2.12	12Q	12.5	10	2000 to 2300
WX-30020P-	3.25	6.38	Flat	0.88	2.75	10R	12	10	0 to 300
WX-30185P-	2.88	12.38	Flat	1.44	2.25	10F2	15	10	1900 to 2300
4" ROUND									
WX-4912P-	4.12	13	Flat	1.44	3.25	12Q	22	10	2500 to 2700
WX-4965P-	4.12	14	Flat	1.44	3.25	10S	22	10	2400 to 2700
WX-30038P-	4.12	17.88	Flat	1.44	3.2	12Q	12.5	10	2700 to 3300
5" ROUND									
5CEP-	5.31	13.5	Flat	1.44	4.25	12Q	12.5	10	2100 to 2400
5DKP-	5.03	11.5	24	1.38	4.25	5AN	9	8	Mag.
5FP-A	5.03	11.5	24	1.38	4.25	5AN	12	7	Mag.
5WP-	5.12	11.81	Flat	1.44	4.25	12C	27	20	3000 to 3800
5ZP-	5.12	14.75	Flat	1.44	4.25	12C	27	20	4100 to 5300
WX-4129P-	5.31	14.5	Flat	1.44	4.25	10T	12.5	10	2700 to 2700
WX-4439P-	5.31	16.5	Flat	1.44	4.25	12D	22	20	Mag.
WX-4647P-	5.31	14.5	Flat	1.44	4.25	12Q	12	10	2400 to 2700
WX-4793P-	5.12	12.5	Flat	1.44	4.25	12M	17	12	0 to 400
WX-4796P-	5	7.5	24	0.87	4.25	—	15	8	0 to 300
WX-4877P-	5.31	22.5	Flat	1.44	4.25	12Q	27	10	3100 to 3500
WX-4903P-	5.38	17.88	Flat	1.44	4.25	10F3	22	15	4000 to 4400





TYPICAL ELECTRICAL CHARACTERISTICS						A L U M	Special Features	Tube Type
Deflection Factor		Useful Scan		Line Width **A**				
D1-D2	D3-D4	D1-D2	D3-D4					
Vdc/inch	Vdc/inch	inches	inches	Mils	@			
133	91	1.25	3.5	28	30 $\mu$ A	No	Integral Shield Rugged.	WX-4030P-
150	110	Full Screen	Full Screen	30	100 $\mu$ A	No	Post Defl. Accel.	3JP-A
68	48	2.5	2.5	26	7 Ft.-L	No	High Defl. Sens.	3WP-
90	50	Full Screen	Full Screen	20	4.5 Ft.-L	No	—	WX-5078P-
52	32	3.9	2.4	20	4.5 Ft.-L	No	Post Defl. Accel. High Freq. Oper.	WX-5006P-
42	24	Full Screen	Full Screen	23	4 Ft.-L	No	High Defl. Sens.	5DEP-
58	47	Full Screen	Full Screen	23	4 Ft.-L	No	Mono Accelerator	5UP-
118	105	Full Screen	Full Screen	20	8 Ft.-L	No	High Brightness	WX-30362P-
42	24	Full Screen	Full Screen	23	4 Ft.-L	No	High Defl. Sens.	WX-5038P-
225	185	3.25	3.25	3	4 Ft.-L	Yes	High Resolution	WX-30359P-
90	73	Full Screen	Full Screen	40	300 $\mu$ A	No	High Defl. Sens.	7VP-
100	78	Full Screen	Full Screen	30	50 $\mu$ A	No	Post Defl. Accel.	WX-31101P-
70	60	6.5	6.25	—	—	No	Post Defl. Accel.	8CP-
100	85	6.5	6.25	35	50 $\mu$ A	Yes	Post Defl. Accel. High Light Out.	WX-31102P-
100	85	6.5	6.25	30	50 $\mu$ A	No	Post Defl. Accel.	WX-30168P-



TYPICAL ELECTRICAL CHARACTERISTICS						Special Features	Tube Type
Grid 2	Grid 1 Cutoff	Defl. Angle	Line Width **A**		Alum. Screen		
Vdc	-Vdc	Degrees	Mils	@			
1" ROUND							
300	35 to 75	34	0.75	1 $\mu$ A	Yes	High Resolution	WX-4527P-
1.5" ROUND							
300	35 to 75	30	0.75	2 $\mu$ A	Yes	High Resolution	WX-4497P-
300	35 to 75	30	0.75	2 $\mu$ A	Yes	Fiber-Optic F.P., High Res.	WX-4949P-
3" ROUND							
300	40 to 70	35	1.4	4 $\mu$ A	Yes	High Resolution	WX-4127P-
300	40 to 70	40	0.8	1 $\mu$ A	Yes	Single Axis Aux. Defl., High Res.	WX-4827P-
300	40 to 70	42	1.5	4 $\mu$ A	Yes	Flat Fiber-Optic F. P., High Res.	WX-4916P-
300	20 to 60	53	5	50 $\mu$ A	Yes	Small Neck. For Low Defl. Power	WX-30020P-
300	40 to 70	40	0.68	1 $\mu$ A	Yes	Very High Resolution	WX-30185P-
4" ROUND							
300	40 to 70	42	1.5	4 $\mu$ A	Yes	High Resolution	WX-4912P-
300	40 to 70	42	1.5	4 $\mu$ A	Yes	Single Axis Aux. Defl., High Res.	WX-4965P-
500	40 to 80	42	0.65	1 $\mu$ A	Yes	Full Fiber Optic F.P., Very High Res.	WX-30038P-
5" ROUND							
300	40 to 70	42	1.5	4 $\mu$ A	Yes	High Resolution	5CEP-
250	30 to 75	53	6.3	200 $\mu$ A	Yes	—	5DKP-
250	25 to 70	53	10	200 $\mu$ A	No	—	5FP-A
200	70 Max.	50	8	20 $\mu$ A	Yes	—	5WP-
200	42 to 98	40	4.5	30 $\mu$ A	Yes	—	5ZP-
300	35 to 70	42	1.5	2 $\mu$ A	Yes	Double Axis Aux. Defl., High Res.	WX-4129P-
300	35 to 75	42	1.7	10 $\mu$ A	Yes	High Resolution	WX-4439P-
300	40 to 70	42	1.0	1 $\mu$ A	Yes	High Resolution	WX-4647P-
300	35 to 75	40	8	50 $\mu$ A	Yes	—	WX-4793P-
300	25 to 60	70	10	50 $\mu$ A	Yes	Small Neck for Low Defl. Power	WX-4796P-
300	40 to 70	25	2.5	4 $\mu$ A	Yes	Imp. Defl. Linearity, High Res.	WX-4877P-
500	35 to 80	40	.65	1 $\mu$ A	Yes	Very High Resolution	WX-4903P-

# Magnetic Deflection - Round (Cont.)

Tube Type	PHYSICAL CHARACTERISTICS						Abs.		
	Max. Bulb Face Dia.	Max. Length	Faceplate Radius	Neck Dia.	Minimum Scr. Dia.	Base Dwg.	Max. Anode	Anode	Focus Voltage
	inches	inches	inches	inches	inches	(Page 8)	KV	KV	Vdc
WX-5321P-	5.38	16.56	2" Cyl.	1.44	4.25 × .25	10F3	18	15	3800 to 4200
WX-5407P-	5.12	12.38	Flat	1.44	4.25	10S	25	20	3000 to 3600
WX-30113P-	5	8.38	24	0.87	4.25	10R	15	8	0 to 300
WX-30243P-	5	9.12	24	1.38	4.25	12M	10	6	0 to 300
WX-30297P-	5.31	14.12	Flat	1.44	4.25	12Q	12.5	10	2800 to 3200
WX-30318P-	5.31	13.5	Flat	1.44	4.25	12Q	22	20	4200 to 4800
WX-30321P-	5.12	12.12	7	1.44	4.25	10F4	30	20	3100 to 3500
WX-31040P-	5.12	13.88	Flat	1.44	4.25	12D	25	20	Mag.
WX-31205P-	5.38	17.88	Flat	1.44	4.25	10F4	22	15	4000 to 4400
WX-31227P-	5.12	12.38	Flat	1.44	4.25	12M	25	20	0 to 400
WX-30566P-	5.31	12.12	Flat	1.44	4.25	12Q	22	10	1400 to 1700
7" ROUND									
7ABP-A	7.31	13.5	24	1.44	6	12M	10	7	0 to 250
7AUP-	7.06	8.5	24	0.87	6	9HT	15	8	0 to 300
7BP-B	7.12	13.62	24	1.38	6	5AN	8	7	Mag.
7MP-	7.31	13.12	24	1.44	6	12D	8	7	Mag.
7TP-	7.31	13.5	24	1.44	6	12Q	12	10	1200 to 1700
WX-4541P-	7.06	8.5	24	0.87	6	10R	15	8	0 to 300
WX-4595P-	7.31	15.25	24	1.44	6	10V	22	10	2100 to 2400
WX-5039P-	7.31	13.75	24	1.44	6	12M	12	7	0 to 250
WX-30315P-	7.12	21.38	Flat	1.44	6.25	12D	22	15	Mag.
WX-30544P-	7.12	15.12	Flat	1.44	6.25	12Q	22	10	1500 to 1800
WX-31127P-	7.12	16.38	Flat	1.44	6.25	12D	25	20	Mag.
WX-31337P-	7.31	13.5	24	1.44	6	12Q	22	10	1500 to 1800
9" ROUND									
WX-30026P-	9.31	22.12	Flat	1.44	8.25	12Q	25	20	6000 to 6300
WX-31273P-	9	10	Flat	0.87	7.6	10R	15	8	0 to 500
10" ROUND									
10KP-A	10.56	18	42	1.44	9	12D	12	9	Mag.
10KP-B	10.56	18	42	1.44	9	12D	12	9	Mag.
10SP-	10.56	17	42	1.44	9	12Q	20	12	1400 to 1900
10UP-A	10.56	18	42	1.44	9	12M	15	10	-150 to 150
10WP-	10.56	17.31	42	1.44	9	12M	12	10	0 to 300
10WP-A	10.56	17.31	42	1.44	9	12M	12	10	0 to 300
WX-4924P-	10.56	17.5	42	1.44	9	10S	22	10	4200 to 2400
WX-5357P-	10.56	18	42	1.44	9	12Q	22	10	1500 to 1800
WX-30176P-	10.25	20.5	Flat	1.44	9	10T	22	10	3000 to 3400
WX-31114P-	10.56	14.06	42	0.87	9	10R	15	10	0 to 300
WX-31224P-	10.25	20.5	Flat	1.44	9	12Q	22	10	3000 to 3400
12" ROUND									
12ABP-A	12.56	18.38	40	1.44	11	12M	15	10	0 to 300
12SP-B	12.56	19.12	40	1.44	11	12D	15	9	Mag.
WX-30211P-	12.12	26.5	Flat	1.44	10.75	10W	16	12	3000 to 4400
WX-31060P-	12.12	26.5	Flat	1.44	10.75	12M	12.5	10	0 to 400
16" ROUND									
16AKP-	16	22.44	56	1.44	14.5	12M	15	12	0 to 400
16ALP-	16	23.94	56	1.44	14.5	12M	15	12	0 to 400
WX-5008P-	16	25.12	56	1.44	14.5	10T	22	10	2600
WX-30208P-	16	22.69	60	1.44	14.38	10X	15	12	3000 to 4400
WX-30336P-	16	23	56	1.44	14.5	12M	22	15	0 to 400
WX-31330P-	16	23.25	56	1.44	14.5	12Q	22	10	1600 to 1900





TYPICAL ELECTRICAL CHARACTERISTICS						Special Features	Tube Type
Grid 2	Grid 1 Cutoff	Defl. Angle	Line Width **A**		Alum. Screen		
Vdc	-Vdc	Degrees	Mils				
500	40 to 80	42	0.7	1 $\mu$ A	Yes	Raised Strip FOFP, Very High Res. Single Axis Aux. Defl. Small Neck for Low Defl. Power Offset for Sector Scan	WX-5321P-
300	30 to 70	40	5	25 $\mu$ A	Yes		WX-5407P-
300	20 to 50	40 Max.	12	50 $\mu$ A	Yes		WX-30113P-
250	15 to 45	53	13	50 $\mu$ A	Yes	—	WX-30243P-
300	40 to 70	42	1.3	1 $\mu$ A	Yes	High Resolution	WX-30297P-
300	40 to 70	42	1.5	4 $\mu$ A	Yes	High Resolution	WX-30318P-
500	70 to 100	50	8.0	1 mA	Yes	High Brightness	WX-30321P-
500	40 to 70	40	10	500 $\mu$ A	Yes	High Brightness	WX-31040P-
500	35 to 80	40	0.65	1 $\mu$ A	Yes	UV Trans. F.P., Very High Res.	WX-31205P-
300	40 to 70	40	12	200 $\mu$ A	Yes	High Brightness	WX-31227P-
300	40 to 70	42	4.0	50 $\mu$ A	Yes	High Res. at High Beam Current	WX-30566P-
7" ROUND							
300	33 to 77	50	12	100 $\mu$ A	Yes	—	7ABP-A
300	25 to 60	70	12	50 $\mu$ A	Yes	Small Neck for Low Defl. Power	7AUP-
250	25 to 70	53	11	200 $\mu$ A	No		7BP-B
250	27 to 63	50	12	200 $\mu$ A	No	—	7MP-
200	23 to 53	50	12	100 $\mu$ A	Yes	—	7TP-
300	60 Max.	70	12	50 $\mu$ A	Yes	Rugged, Small Neck for Low Defl. Power	WX-4541P-
300	40 to 70	50	2.75	4 $\mu$ A	Yes	Double Axis Aux. Defl., High Res. Laminated F.P. Implosion Protection High Resolution	WX-4595P-
300	33 to 77	53	12	100 $\mu$ A	Yes		WX-5039P-
2K	40 to 100	50	1.5	1 $\mu$ A	Yes	High Resolution	WX-30315P-
300	40 to 70	50	4	25 $\mu$ A	Yes	High Resolution. 3.62" Yoke Clear.	WX-30544P-
1K	40 to 80	50	4	1 $\mu$ A	Yes	—	WX-31127P-
300	40 to 70	50	4	25 $\mu$ A	Yes	High Resolution	WX-31337P-
9" ROUND							
300	40 to 70	44	2.5	4 $\mu$ A	Yes	High Resolution	WX-30026P-
350	15 to 25	70	12	50 $\mu$ A	Yes	Rugged, Lam. F.P. Imp. Prot. Small Neck Dia. for Low Defl. Power	WX-31273P-
10" ROUND							
300	35 to 72	50	15	200 $\mu$ A	No	—	10KP-A
300	35 to 72	50	15	200 $\mu$ A	Yes	—	10KP-B
200	20 to 50	50	15	100 $\mu$ A	Yes	—	10SP-
300	33 to 77	50	15	100 $\mu$ A	Yes	—	10UP-A
300	33 to 72	50	17	100 $\mu$ A	No	—	10WP-
300	33 to 72	50	17	100 $\mu$ A	Yes	—	10WP-A
300	25 to 45	50	15	50 $\mu$ A	Yes	Single Axis Aux. Defl.	WX-4924P-
300	40 to 70	50	5	50 $\mu$ A	Yes	High Resolution	WX-5357P-
500	40 to 80	60	2	4 $\mu$ A	Yes	Double Axis Aux. Defl., High Res.	WX-30176P-
300	75 Max.	50	17	100 $\mu$ A	Yes	Small Neck for Low Defl. Power	WX-31114P-
500	40 to 80	60	1.7	4 $\mu$ A	Yes	High Resolution	WX-31224P-
12" ROUND							
300	28 to 72	55	19	100 $\mu$ A	Yes	—	12ABP-A
250	27 to 63	55	15	200 $\mu$ A	Yes	—	12SP-B
500	40 to 70	36	10	—	No	2-Rear Windows, Double Axis Aux. Defl.	WX-30211P-
300	40 to 70	36	10	—	No	2-Rear Windows	WX-31060P-
16" ROUND							
300	35 to 75	53	25	100 $\mu$ A	Yes	—	16AKP-
300	35 to 75	53	25	100 $\mu$ A	Yes	—	16ALP-
300	40 to 70	53	10	25 $\mu$ A	Yes	Double Axis Aux. Defl.	WX-5008P-
400	35 to 70	60	12	25 $\mu$ A	Yes	Low Cap. Double Axis Aux. Defl.	WX-30208P-
400	35 to 75	53	14	100 $\mu$ A	Yes	—	WX-30336P-
300	40 to 70	53	8	50 $\mu$ A	Yes	—	WX-31330P-

# Magnetic Deflection - Rectangular

Tube Type	PHYSICAL CHARACTERISTICS							Base Dwg. (Page 8)	Abs. Max.	Anode KV
	Max. Bulb Face H X W	Max. Length	Faceplate Radius	Neck Dia.	Min. Screen Dimensions					
	inches	inches	inches	inches	Height	Width	Diag.			
8" RECTANGULAR										
8HP-	6.12×7.94	10.25	27	1.44	5.38"	7.19"	7.81"	12L	14	10
8KP-	6.12×7.94	10.25	27	1.44	5.38"	7.19"	7.81"	12M	18	16
8NP-	6.12×7.94	9.94	27	1.44	5.38"	7.19"	7.81"	12M	22	16
WX-30072P-	6.12×7.94	8.94	27	1.44	5.38"	7.19"	7.81"	12M	16	12
WX-30528P-	6.12×7.94	8.7	27	1.12	5.38"	7.19"	7.81"	10V	10	6
10" RECTANGULAR										
WX-5064P-	7.62×9.88	13.44	17.5	1.44	6.62"	9.06"	9.56"	12M	14	10
WX-31039P-	7.62×9.88	12.75	17.5	1.44	6.62"	9.06"	9.56"	12M	12	6
WX-31094P-	7.62×9.88	12.94	17.5	1.44	6.62"	9.06"	9.56"	12M	12	6
11" RECTANGULAR										
WX-31081P-	7.95×9.75	9.31	14	1.12	7.06"	9.0"	10.25"	8HR	15	12
12" RECTANGULAR										
WX-31000P-	8.54×10.94	10.94	25	0.87	7.69"	10.12"	11.62"	10R	15	8
WX-31092P-	8.54×10.94	9.67	25	1.12	7.62"	10.12"	11.62"	8HR	15	12
WX-31250P-	8.54×10.94	11.37	25	20 mm	7.69"	10.12"	11.62"	7GR	14	12
14" RECTANGULAR										
14WP-	10.69×13.19	13.56	24	1.44	9.5"	12.06"	13"	12L	15	10
WX-31364P-	10.69×13.19	15.75	24	1.44	9.5"	12.06"	13"	12Q	20	13.6
WX-31084P-	9.88×12.69	17.38	27	1.44	8.5"	11.38"	12.5"	12L	12.5	10
WX-31144P-	9.88×12.69	14.5	27	0.87	8.5"	11.38"	12.5"	10R	15	10
WX-31150P-	10.69×13.19	15.5	24	1.44	9.5"	12.06"	13"	12L	18	10
16" RECTANGULAR										
WX-30568P-	11.58×14.78	19.44	27	1.44	10.34"	13.79"	15.22"	12Q	22	15
WX-30567P-	11.58×14.78	19.12	27	1.44	10.34"	13.79"	15.22"	12M	22	15
17" RECTANGULAR										
17DWP-	12.41×15.5	19.56	27	1.44	11.12"	14.31"	14.56"	12L	22	18
21" RECTANGULAR										
21EWP-	16.5×20.38	23.41	33	1.44	15.06"	19.06"	20.25"	12D	20	16
WX-4983P-	16.5×20.38	26.5	33	1.44	15.06"	19.06"	20.25"	12Q	20	16
WX-31044P-	15.56×20.25	25	40	1.44	15.06"	19.06"	20.1"	10X	15	12
23" RECTANGULAR										
WX-31061P-	16.62×20.62	18.38	30	1.44	15.12"	19.25"	22.31"	12L	22	14

## Ruggedized Tube - Yoke - Shield Packages

Tube Type	Basic Unit Tube Type	Nom. Size	Package Max. Dia.	Package Max. Length	Faceplate Min. Dim.	Term. (Page 8)	Anode Voltage	
							Max. KV	Typ. KV
WX-5328P-B	WX-5062P-	3"	4.65"	13.12"	2.46" dia.	10F5	15	10
WX-30023P-	-	3"	4.65"	13.12"	2.46" dia.	10F6	15	10
WX-30005P-	WX-4903P-	5"	6.56"	17.75"	4.25" dia.	10F3	18	15
WX-30099P-	WX-5321P-	5"	6.56"	17.75"	4.25"×0.25"	10F8	18	15
WX-30380P-	-	5"	6.56"	22.69"	4.25" dia.	10F7	25	10
WX-30542P-	WX-31205P-	5"	6.56"	17.75"	4.25" dia.	10F4	18	15

## Tube and Component Assemblies

Tube Type	Basic Unit	Nom. Dia.	Components Assembled on Basic Tube
WX-5013P-	WX-5078P-	3"	Integral Magnetic Neck Shield
WX-5062P-	WX-30185P-	3"	Potted Mounting Ring
WX-30189P-	WX-4877P-	5"	Potted Mounting Ring, Pre-aged Phosphor
WX-30555P-	WX-31227P-	5"	Potted Mount. Ring & Anode Lead, Ext. Cond. Coat.





TYPICAL ELECTRICAL CHARACTERISTICS						Special Features	Tube Type
Focus Voltage	Grid 2 Voltage	Grid 1 Voltage	Diag. Defl. Angle	Line Width "A"	Alum Screen		
Vdc	Vdc	-Vdc	Degrees	Mils @			
8" RECTANGULAR							
0 to 300	300	33 to 77	90	12	100 $\mu$ A	Yes —	8HP-
0 to 400	300	33 to 77	90	12	100 $\mu$ A	Yes —	8KP-
0 to 400	300	33 to 77	90	12	100 $\mu$ A	Yes —	8NP-
0 to 300	20	25 to 40	90	15	50 $\mu$ A	Yes Low Video (Cathode) Drive	WX-30072P-
0 to 300	50	16 to 25	90	20	25 $\mu$ A	Yes Low Video Drive	WX-30528P-
10" RECTANGULAR							
0 to 300	300	35 to 75	90	8.5	40 $\mu$ A	Yes —	WX-5064P-
-50 to 350	300	32 to 75	90	12	100 $\mu$ A	Yes —	WX-31039P-
-50 to 350	300	32 to 75	90	12	100 $\mu$ A	Yes Laminated F.P. Implosion Protection	WX-31094P-
11" RECTANGULAR							
0 to 250	400	33 to 70	110	15	25 $\mu$ A	Yes Filled Rim Implosion Protection	WX-31081P-
12" RECTANGULAR							
0 to 300	300	60 Max.	90	15	50 $\mu$ A	Yes Filled Rim Implosion Protection	WX-31000P-
0 to 400	400	45 to 85	110	10	25 $\mu$ A	Yes Filled Rim Implosion Protection	WX-31092P-
0 to 400	300	35 to 65	90	20	100 $\mu$ A	Yes Filled Rim Implosion Protection	WX-31250P-
14" RECTANGULAR							
-50 to 350	250	29 to 69	90	15	100 $\mu$ A	Yes —	14WP-
1800 to 2200	340	38 to 68	90	10	25 $\mu$ A	Yes Laminated F.P. Implosion Protection	WX-31364P-
0 to 400	300	40 to 70	70	10	25 $\mu$ A	Yes —	WX-31084P-
0 to 300	300	30 to 75	70	20	100 $\mu$ A	Yes —	WX-31144P-
0 to 300	300	35 to 70	90	15	100 $\mu$ A	Yes Lam. F.P. Imp. Prot., 3.5" Yoke Clear	WX-31150P-
16" RECTANGULAR							
1500 to 1800	300	40 to 70	70	7	50 $\mu$ A	Yes —	WX-30568P-
0 to 400	400	33 to 77	70	12	100 $\mu$ A	Yes —	WX-30567P-
17" RECTANGULAR							
0 to 400	300	33 to 77	70	20	100 $\mu$ A	Yes —	17DWP-
21" RECTANGULAR							
Mag.	300	33 to 75	72	18	40 Ft.-L	Yes —	21EWP-
4000 to 5000	300	40 to 65	72	15	100 $\mu$ A	Yes —	WX-4983P-
0 to 400	400	35 to 70	70	10	50 $\mu$ A	Yes Low Cap. Double Axis Aux. Defl.	WX-31044P-
23" RECTANGULAR							
0 to 400	450	62 to 106	92	22	150 $\mu$ A	Yes Filled Rim Implosion Protection	WX-31061P-



Line Width		Elements Per Dia.	Special Features	Tube Type
Mils	@			
0.65	1 $\mu$ A	3800	Very High Resolution	WX-5328P-B
0.7	1 $\mu$ A	3530	Single Axis Auxiliary Deflection, Very High Resolution	WX-30023P-
0.65	1 $\mu$ A	6500	Very High Resolution	WX-30005P-
0.7	1 $\mu$ A	6400 $\times$ 360	Raised Strip FOFP, Very High Resolution	WX-30099P-
2.0	4 $\mu$ A	2125	Single Axis Auxiliary Deflection, Very High Resolution	WX-30380P-
0.65	1 $\mu$ A	6500	UV Trans. Faceplate, Very High Resolution	WX-30542P-

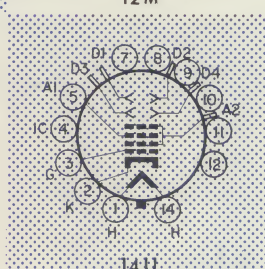
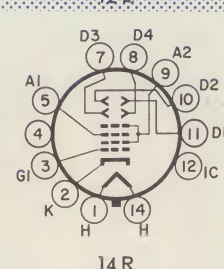
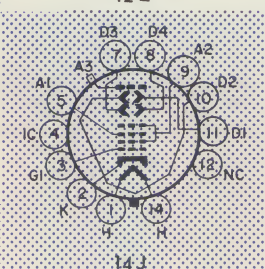
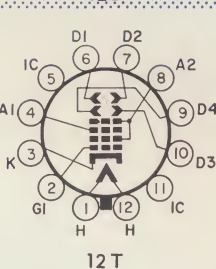
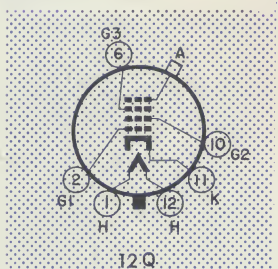
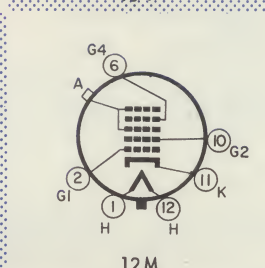
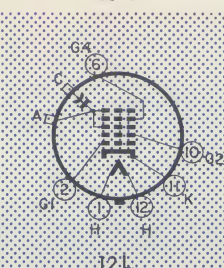
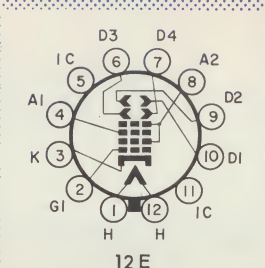
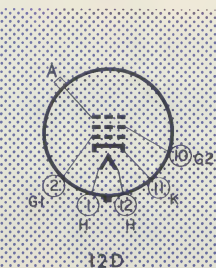
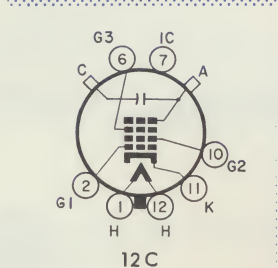
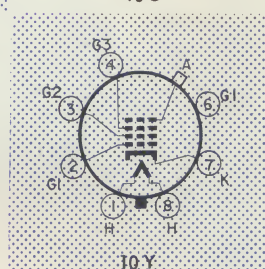
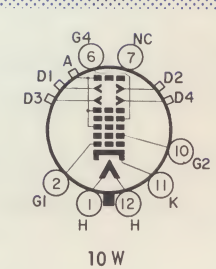
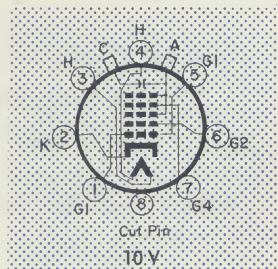
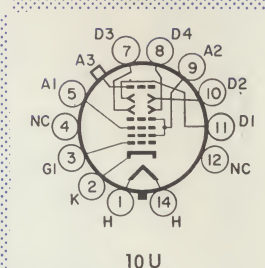
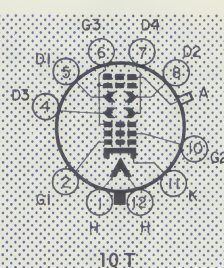
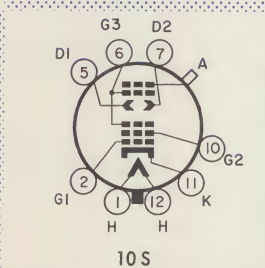
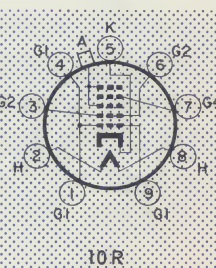
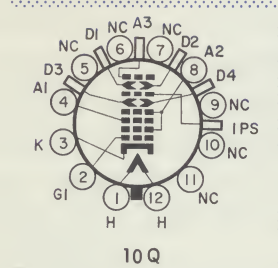
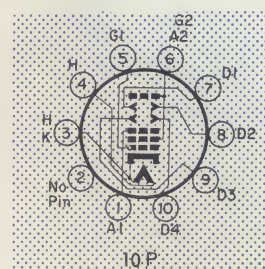
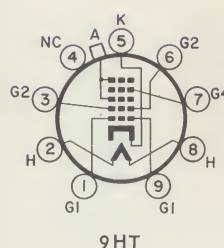
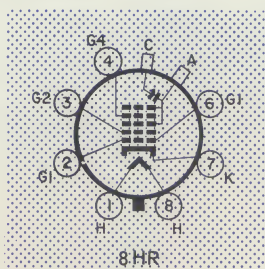
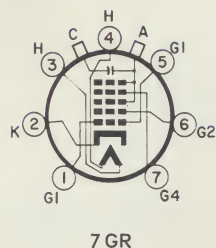
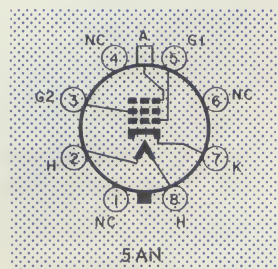


Tube Type	Basic Unit	Nom. Dia.	Components Assembled on Basic Tube
WX-31277P-	5CEP-	5"	Potted Mounting Ring & Anode Lead
WX-30027P-	**	7"	Potted Mag. Shield & Anode Lead, Ruggedized
WX-4417P-	WX-5357P-	10"	** LVES Focus, Mag. Defl., 10 Mil Line Width, 10 KV Anode Potted Mounting Ring



# Notes

1. The above list is representative of the variations of Industrial and Military Cathode Ray Tube types available from Westinghouse. In general, any industry bulb can be combined with specific phosphor and electron gun types to meet individual display system requirements.
2. Many of the above tubes can also be furnished with any of the following variations: Internal Graticules, Fiber Optic Faceplates or Strips, Yokes, Shields, Mounting Fixtures, Implosion Protection or Potted Leads.
3. Fiber Optic Faceplate Tubes should be operated with the anode grounded.
4. Elements per diameter, where given, is limiting value assuming no deflection defocusing. Approximate TV-lines resolution (as defined by EIA) is obtained by multiplying this value by a factor of 2.



## INDEX TO LEADS

Base Dwg.	H	K	G1	G2	Focus AMP	A AMP	D1	D2	Int Yoke
10F1	Brown	Violet	Green	Blue	832692	832692	832692	832692	No
10F2	Brown	Violet	Green	Blue	832692	832692	-	-	No
10F3	Brown	Violet	Green	Blue	832692	833807	-	-	No
10F4	Brown	Violet	Green	Blue	832692	833779	-	-	No
10F5	Brown	Violet	Green	Blue	832692	832692	-	-	Yes
10F6	Brown	Violet	Green	Blue	832692	832692	RG-58/U	RG-58/U	Yes
10F7	Brown	Violet	Green	Blue	832692	833779	Yel. 832692	Yel. 832692	Yes
10F8	Brown	White	Green	Yellow	(Red & Wh)	(Red)	-	-	Yes

## YOKE DATA

To move beam UP, connect Positive to Blue, White to Red, Negative to Brown.  
To move beam RIGHT, connect Positive to Green, Black to Orange, Negative to Yellow.



# SALES OFFICES FOR ELECTRONIC COMPONENTS AND SPECIALTY PRODUCTS

STATE & CITY		ADDRESS	PHONE
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WISCONSIN			
Milwaukee	53201	538 N. Broadway Avenue	(414) 276-1800

WESTINGHOUSE ELECTRIC CORPORATION  
ELECTRONIC TUBE DIVISION  
P. O. BOX 284  
ELMIRA, N.Y.

# MILITARY & INDUSTRIAL CATHODE RAY TUBES



**Westinghouse**

WESTINGHOUSE ELECTRIC CORPORATION  
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